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UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/772,945	01/31/2001	Sugitaka Oteki	202507US2	1573

22850   7590   03/28/2007
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EXAMINER
POON, KING Y

ART UNIT	PAPER NUMBER
2625	

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	03/28/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 03/28/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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PTOL-90A (Rev. 10/06)

	Application No.	Applicant(s)
Office Action Summary	09/772,945	OTEKI ET AL.
	Examiner	Art Unit	
	King Y. Poon	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>26 December 2006</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,6,7 and 11* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,6,7 and 11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>31 January 2001</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

2.   Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Okino

(US 5,754,705).

Regarding claim 11: Okino teaches an image processing method comprising

the steps of: dividing image data into m x n pixels, having n lines with m pixels per one

line (column 2, lines 50-67); transferring (from 104 to 105, fig. 3) each one of the n lines

of the image data to a predetermined destination; switching the predetermined

destination for the each one of the n lines of image data (column 3, lines 1-10); storing

one lines of the image data of pixels (column 3, lines 5-10) in each of (n-1) number of

memories (306, fig. 2B); batch compressing the image data of mxn pixels (column 3,

lines 35-40), wherein said transferring directly transfer (n-1) lines of the n lines of image

data to said (n-1) number of memories, and the remaining one of the n lines of image

data directly to a compression unit based on the switching and transfer the (n-1) lines

stored in the (n-1) number of memories to the compression unit (column 3, lines 30-50),

wherein said transferring of the (n-1) lines of the image data stored in the (n-1) number

of memories to said compression unit is performed simultaneously with the direct

transfer of said remaining one line of the n lines of the image data to said compression

unit (along with, column 3, lines 10-17).

Okino, while discussion the well known conventional invention, does not

disclosed a control unit for controlling the image processor.

However, Okino, in column 5, lines 15-30, teaches to use a controlling unit to

control the entire image processor in his invention.

Since the conventional invention discussed by Okino is not controlled by human,

it requires some kind of controlling device to control the timing of the operation.

Therefore, it would have been obvious to a person with ordinary skill in the art at

the time the invention was made to have modified the conventional invention to include:

controlling unit to control the entire image processor in order for the conventional

invention (image processor) to be properly functioning.

3.   Claims 1, 2, 6, 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Okino (US 5,754,705) in view of Itoh (US 5,305,310).

Regarding claims 1, 6: Okino teaches an image processor (image processing

system, column 1, lines 10-15) comprising: a switch (note) configured to divide image

data into m x n pixels, having n lines with m pixels per one line and to transfer (the

image data are stored in a shift register and the control program itself) each one of the n

lines of image data to a predetermined destination (306, column 3, lines 1-5); a storage

unit (306, column 3, line 1) including n-1 number of memories (7 lines of memories,

column 3, lines 30-40, each line forms a memory) each configured to store one line of

the n lines of image data (column 3, lines 1-5, column 3, lines 30-45); sending the
image data of the image data to the predetermined destination; a compression unit
(307, column 3, lines 18-21) which batch compresses the image data of m x n pixels,
wherein (n) lines of image data are being send to said (n-1) number of memories, and a
remaining one line of image data are being send directly to said compression unit; and
to control the storage unit to transfer the (n-1) lines of the image data stored in the (n-1)
number of memories to said compression unit (column 3, lines 30-41), and wherein said
transfer from the storage unit of the (n-l) lines of the image data stored in the (n-1)
number of memories to said compression unit is performed simultaneously with the
direct transfer of said remaining one line of the n lines of the image data to said
compression unit (column 3, lines 10-20).

Okino, while discussion the well known conventional invention, does not
disclosed a control unit for controlling the image processor.

However, Okino, in column 5, lines 15-30, teaches to use a controlling unit to
control the entire image processor in his invention.

Since the conventional invention discussed by Okino is not controlled by human,
it requires some kind of controlling device to control the timing of the operation.

Therefore, it would have been obvious to a person with ordinary skill in the art at
the time the invention was made to have modified the conventional invention to include:
controlling unit to control the entire image processor in order for the conventional
invention (image processor) to be properly functioning.

Note: Okino does not teach the detail of the buffer memory of column 3, lines 30-42, and how the data is being stored into the buffer memory.

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to rely on other references that specifically teaches how a buffer memory is made of and how data is being stored into the memory, in order to made use of Okino's invention.

Itoh, in the same area of storing data in to different column of a buffer memory, teaches that a buffer memory storing data in columns is made up with multiple FIFO memories/buffers (column 4, lines 23-32), and data is being stored into the buffer memories by dividing and storing the data, using a switch, into the FIFO buffers directly (column 7, lines 30-33).

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Itoh to include: a buffer memory storing data in columns is made up with multiple FIFO memories/buffers, and data is being stored into the buffer memories by dividing and storing the data, using a switch, into the FIFO buffers directly as taught by Itoh such that Okino's system would be properly functioned. Using a well known method to supplement what Okino does not disclosed, but is essential for Okino's system to be operable would save the user a lot of time. money and effort in doing his own research.

Regarding claims 2, 7: Okino teaches wherein said storage unit comprises (n-1) number of FIFO memories (column 3,lines 40-50), and said control unit controls sending

of each line of the image data divided by said dividing unit to said FIFO memories

(column 3, lines 5-16), respectively.

Response to Arguments

4.   Applicant's arguments filed 12/26/2006 have been fully considered but they are

not persuasive.

With respect to applicant's argument that " Okino does not teach wherein said

transfer from the storage unit of the (n-l) lines of the image data stored in the (n-1)

number of memories to said compression unit is performed simultaneously with the

direct transfer of said remaining one line of the n lines of the image data to said

compression unit" has been considered.

In reply: Okino, column 3, lines 10-20 teaches <u>when</u> the signals of the eighth row

(remaining one line)...transferred to a compression processor <u>along with</u> ...first to eight

column (image data stored in (n-1) number of memories).

"When" according dictionary.com means at the time. "Along with" according to

dictionary.com means "during." "During" means "at the time."

Therefore, Okino teaches wherein said transfer from the storage unit of the (n-l)

lines of the image data stored in the (n-1) number of memories to said compression unit

is performed simultaneously (at the time) with the direct transfer of said remaining one

line of the n lines of the image data to said compression unit.

5.   Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

        A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.
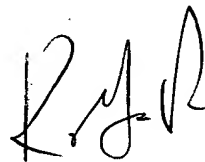

Conclusion

6.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to King Y. Poon whose telephone number is 571-272-

7440. The examiner can normally be reached on Mon-Fri 8:00-4:30.

        If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Edward Coles can be reached on 571-272-7402. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

March 20, 2007

KING Y. POON
PRIMARY EXAMINER